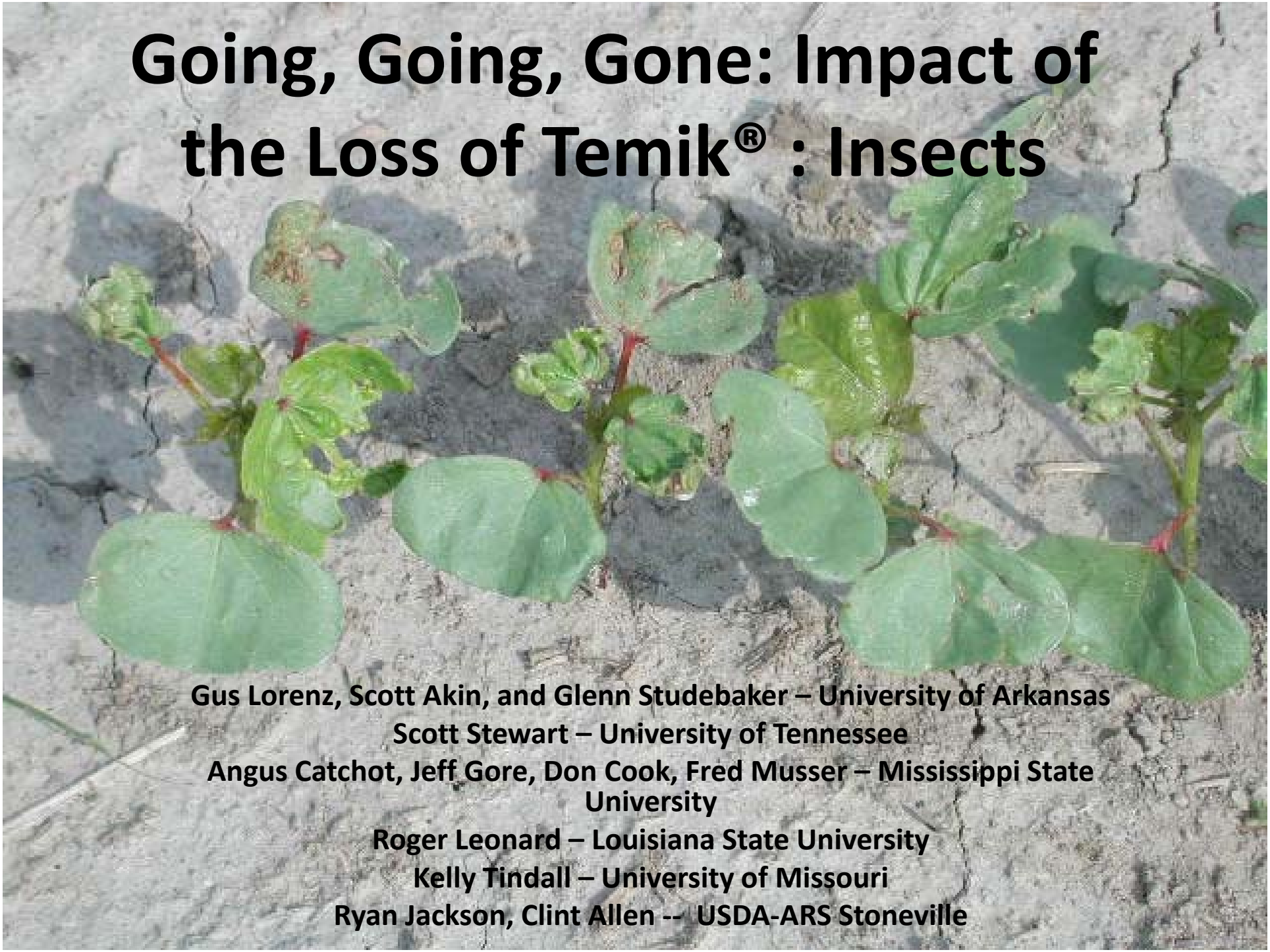
Going, Going, Gone: Impact of the Loss of Temik® : Insects



Gus Lorenz, Scott Akin, and Glenn Studebaker – University of Arkansas

Scott Stewart – University of Tennessee

Angus Catchot, Jeff Gore, Don Cook, Fred Musser – Mississippi State University

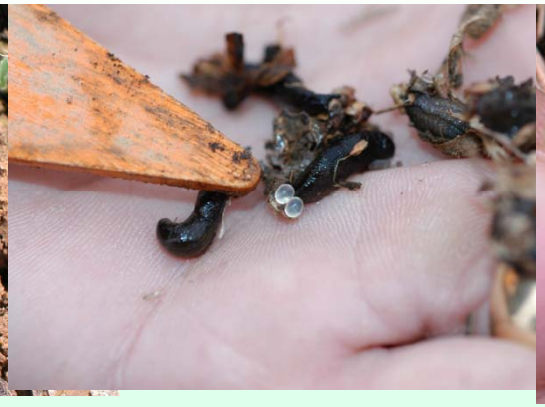
Roger Leonard – Louisiana State University

Kelly Tindall – University of Missouri

Ryan Jackson, Clint Allen -- USDA-ARS Stoneville

Early Season Pests of Concern

Cutworms



Slugs

False Chinch Bugs

Thrips

Aphids

Spider Mites

Plant Bugs

Thrips Management
Temik vs Seed Treatments

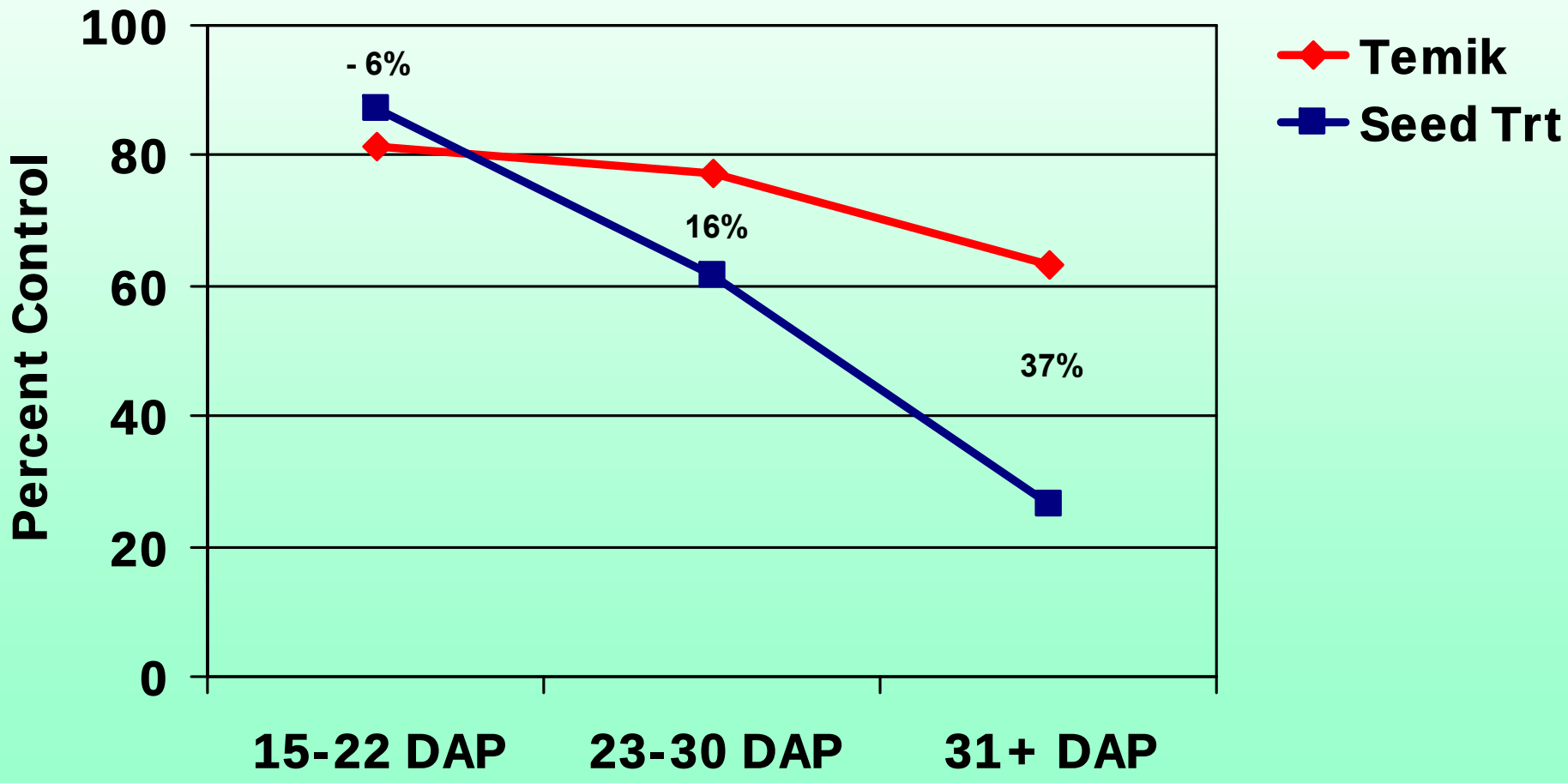
- **Preventative in-furrow insecticides or seed treatments are recommended**
  - Temik 15G (3.5 - 5 lb/acre)
  - Gaucho Grande (imidacloprid, 0.375 mg ai/seed)
    - Aeris (0.375 mg imidacloprid + 0.375 mg thiodicarb)
  - Cruiser (thiamethoxam, 0.34 mg ai/seed)
    - Avicta Complete Pack (0.34 mg thiamethoxam + 0.15 mg abamectin)
  - In-furrow Orthene or acephate (0.90-0.97 lb ai/acre)
    - Seed treatment of 8-25 oz/cwt
- **Supplemental foliar applications as needed**
  - Orthene (0.20-0.25 lb ai/acre), Bidrin 8E (1.6-3.0 oz/acre) and Dimethoate 4E (4-6 oz/acre)

Stewart (UT) & Lorenz (UA)

Percent Thrips Control

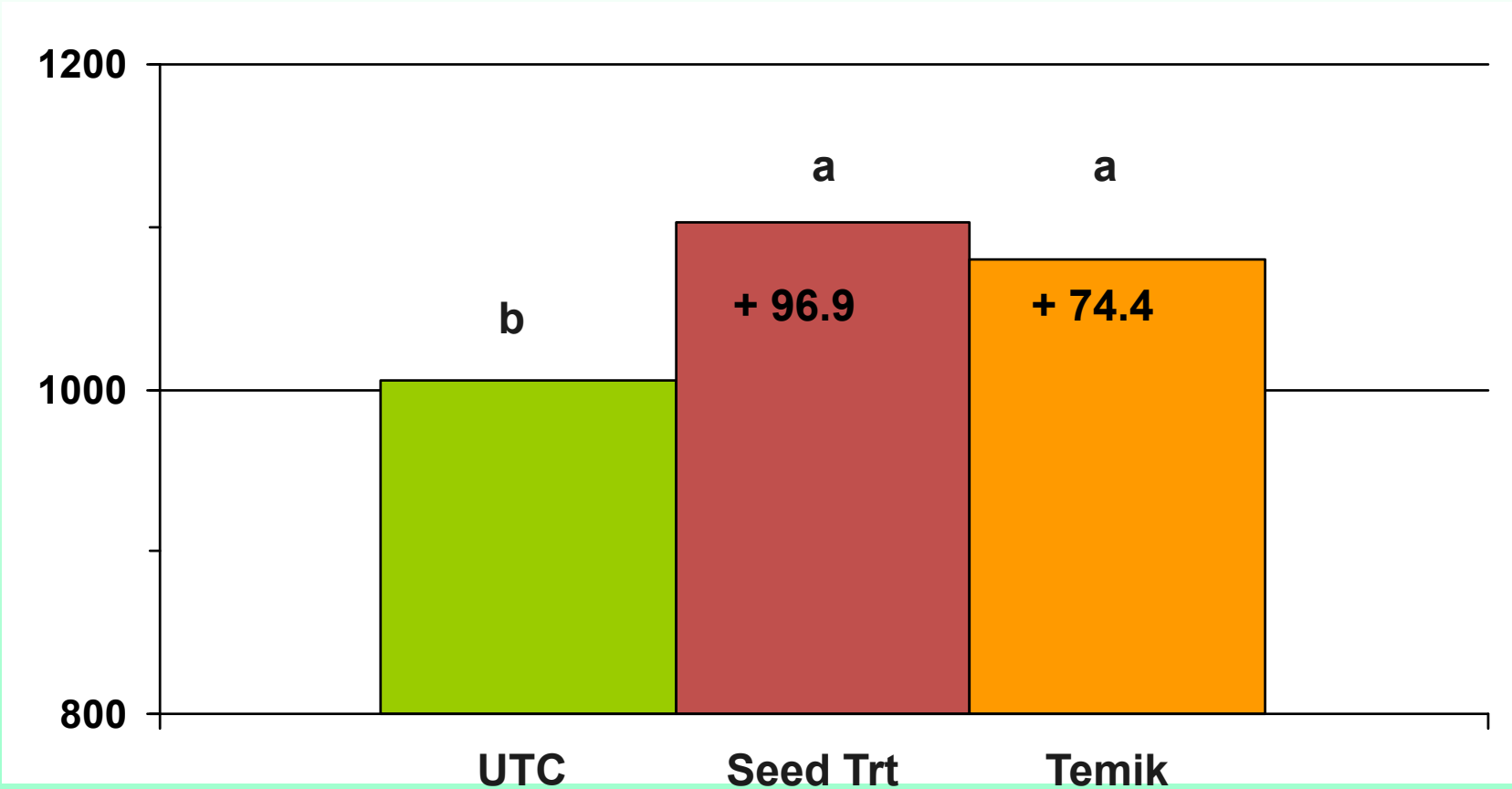
Temik and Seed Treatments, 14 Trials (2003-2007)

(3.5-5 lbs) (Gaucho Grande/Aeris/Cruiser/Avicta CP)



Thrips Trials - Yield (Lb Lint/Acre)

Stewart (UT) and Lorenz (UA)
14 Trials from 2003-2007, WTES and Arkansas



N = 8 in TN, 6 in AR

P < 0.05

Spider Mites
Early-Season Damage

Spider Mite Risk Factors
(Particularly Early Season)

- Geography
- Shift from Temik to Seed Treatments
- In-field vegetation present at emergence
- Flaring with insecticides
- Weather (hot and dry) ???

None of these factors is totally predictive of spider mite infestations

NC - Acres Treated for Spider Mites

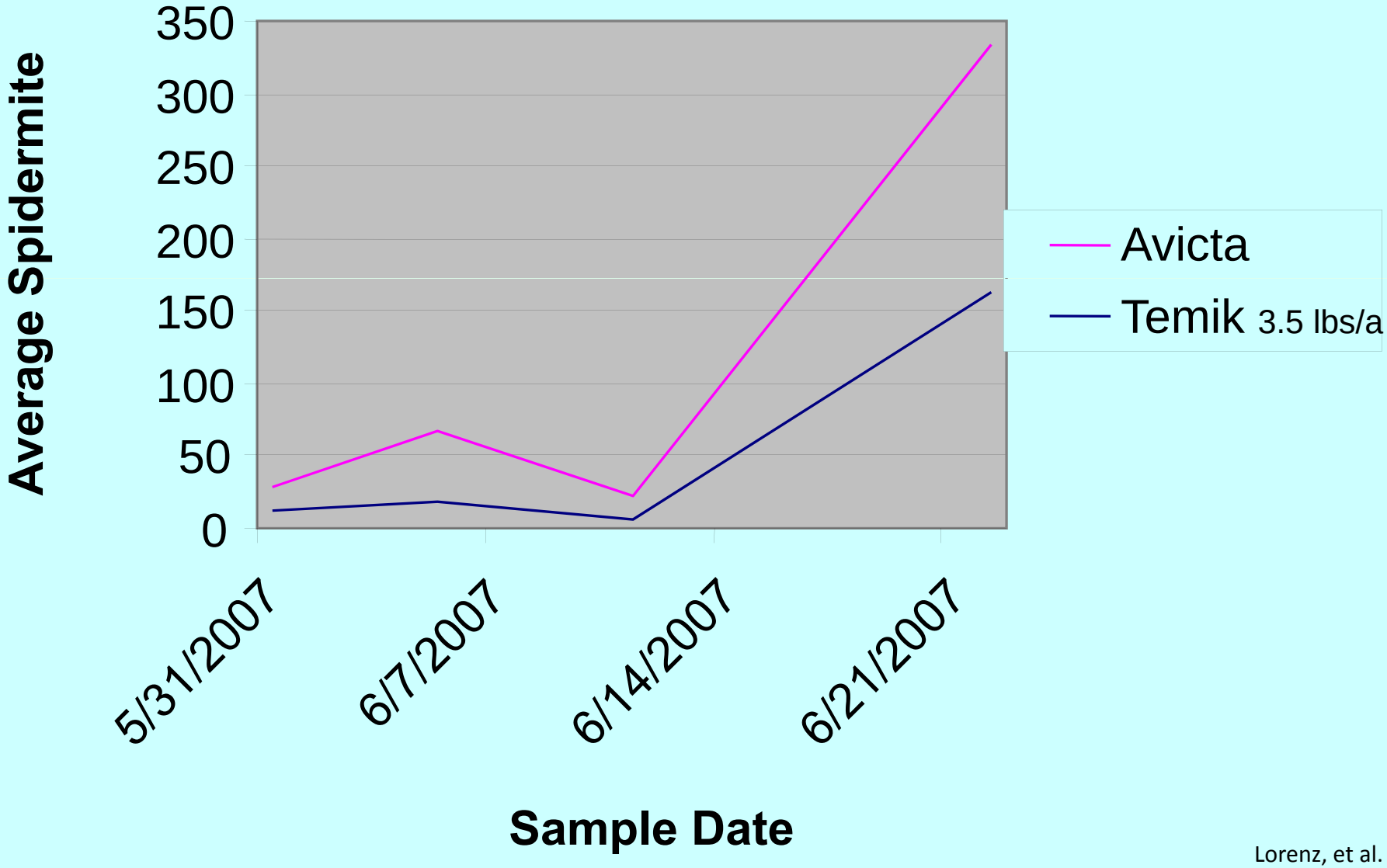
(2004-2005 Consultants' Survey, ≈ 150 Producers)

Usage Pattern	% Acres Treated	Odds of Treatment
Mostly Used Temik (25%)	0.58	1/170
Mostly Used Seed Trt. (75%)	5.3	1/19

Difference = 9 fold

Bacheler, NCSU

Average Spider Mites by Sample Date

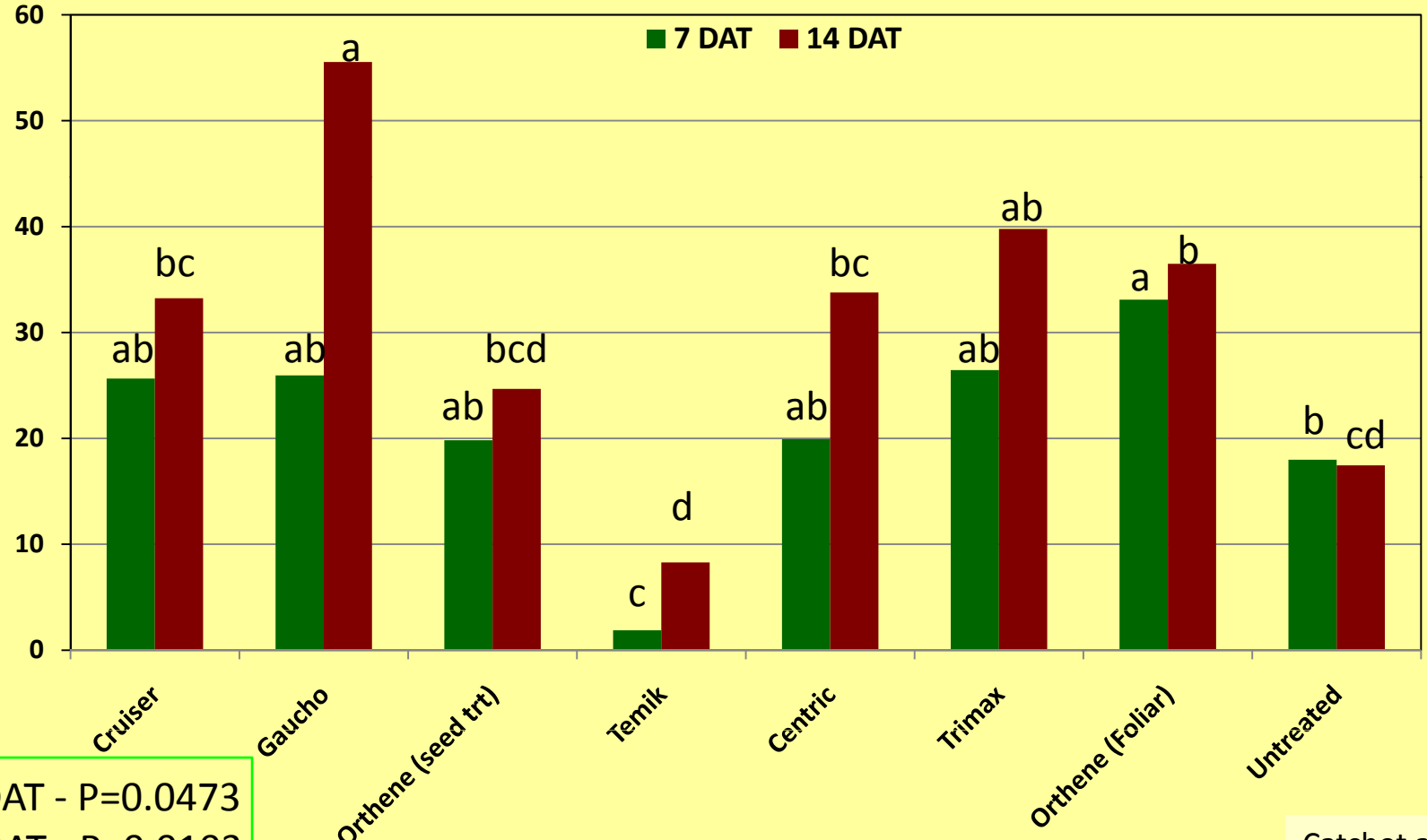


Lorenz, et al.

Effect of Seed Treatments, Temik and Foliar Insecticides on Mites

Starkville, MS - June 2008.

Number of Immature Mites/Leaf.



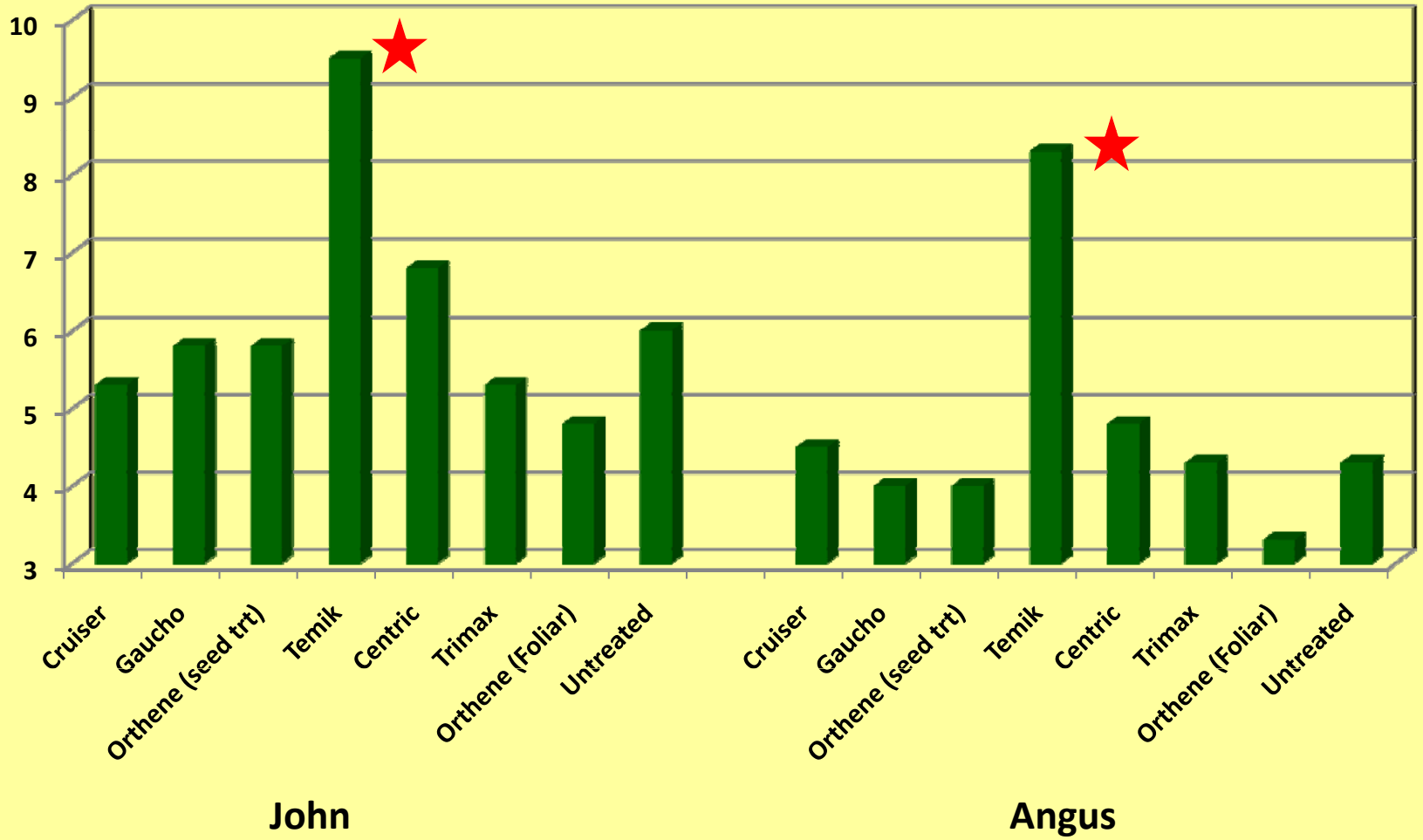
7 DAT - P=0.0473
14 DAT - P=0.0103

Catchot and Smitty

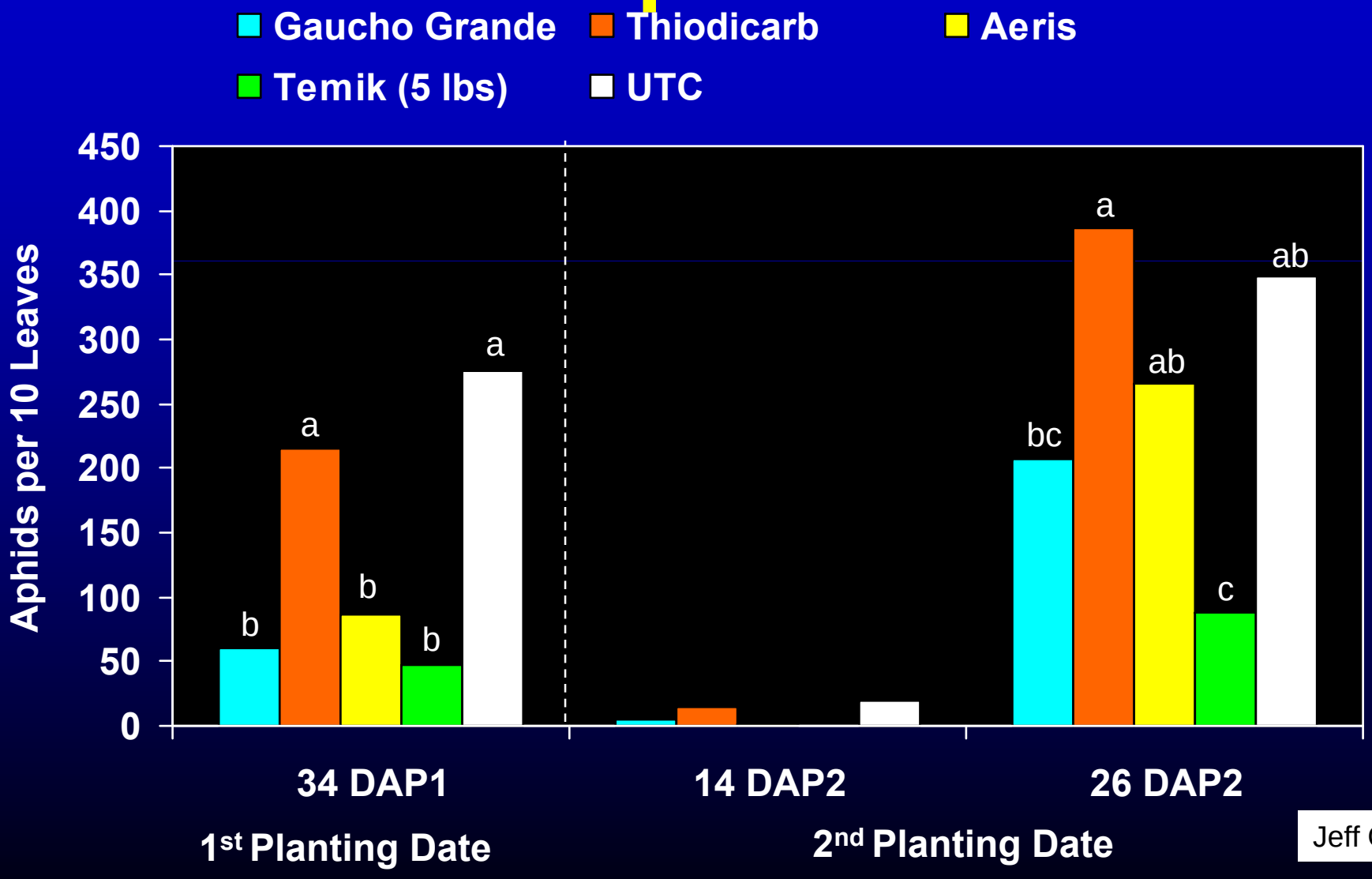
Effect of Seed Treatments, Temik and Foliar Insecticides on Mites

Starkville, MS - June 2008

Visual Rating of Mite Injury (1-10, 10=best)

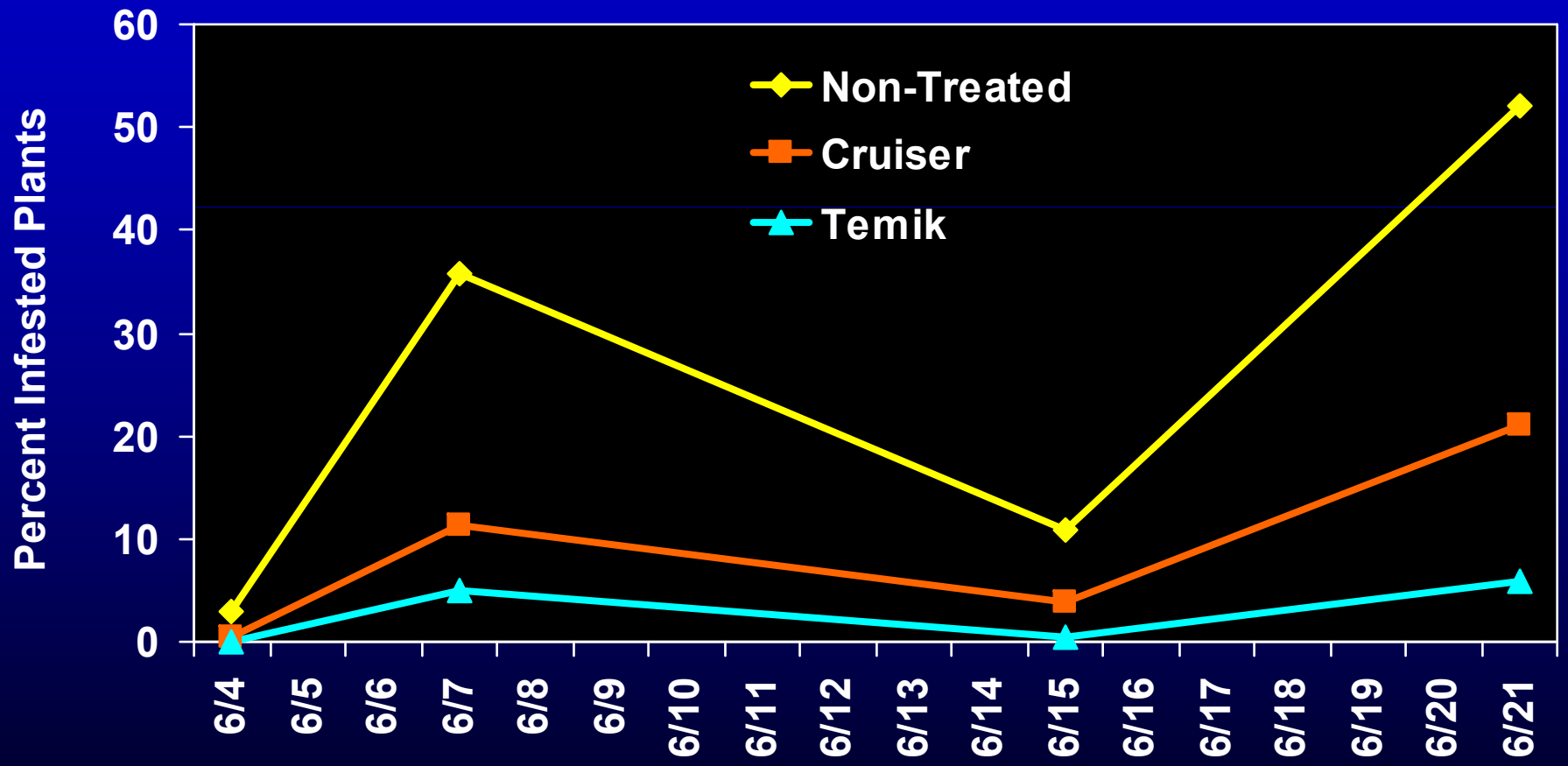


Aeris Seed Treatment – Aphids



Jeff Gore

Impact of At-Planting Insecticides on Aphid Populations



Data generated from large blocks of cotton >5 acres

Jeff Gore

Summary

- Seed treatments do not have residual of Temik for thrips control
- However, adequate protection in most cases
- Seed treatments have obvious advantages over IF: ease, better tox, no app. issues
- Concern is over: 1)impact to occasional and 2° pests: spider mites, aphids, and 2) overuse of neonicitinoids/ Rs issues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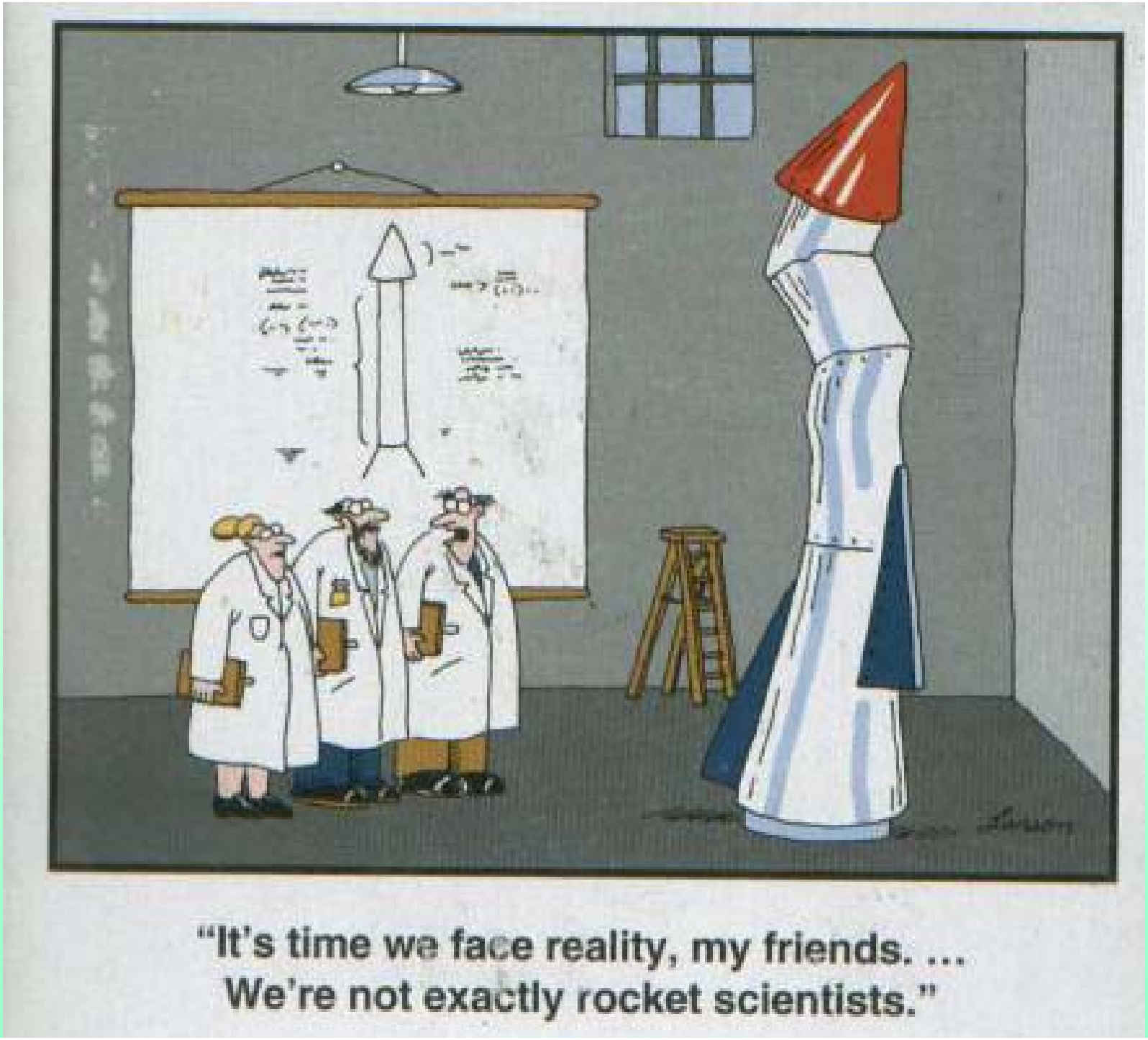
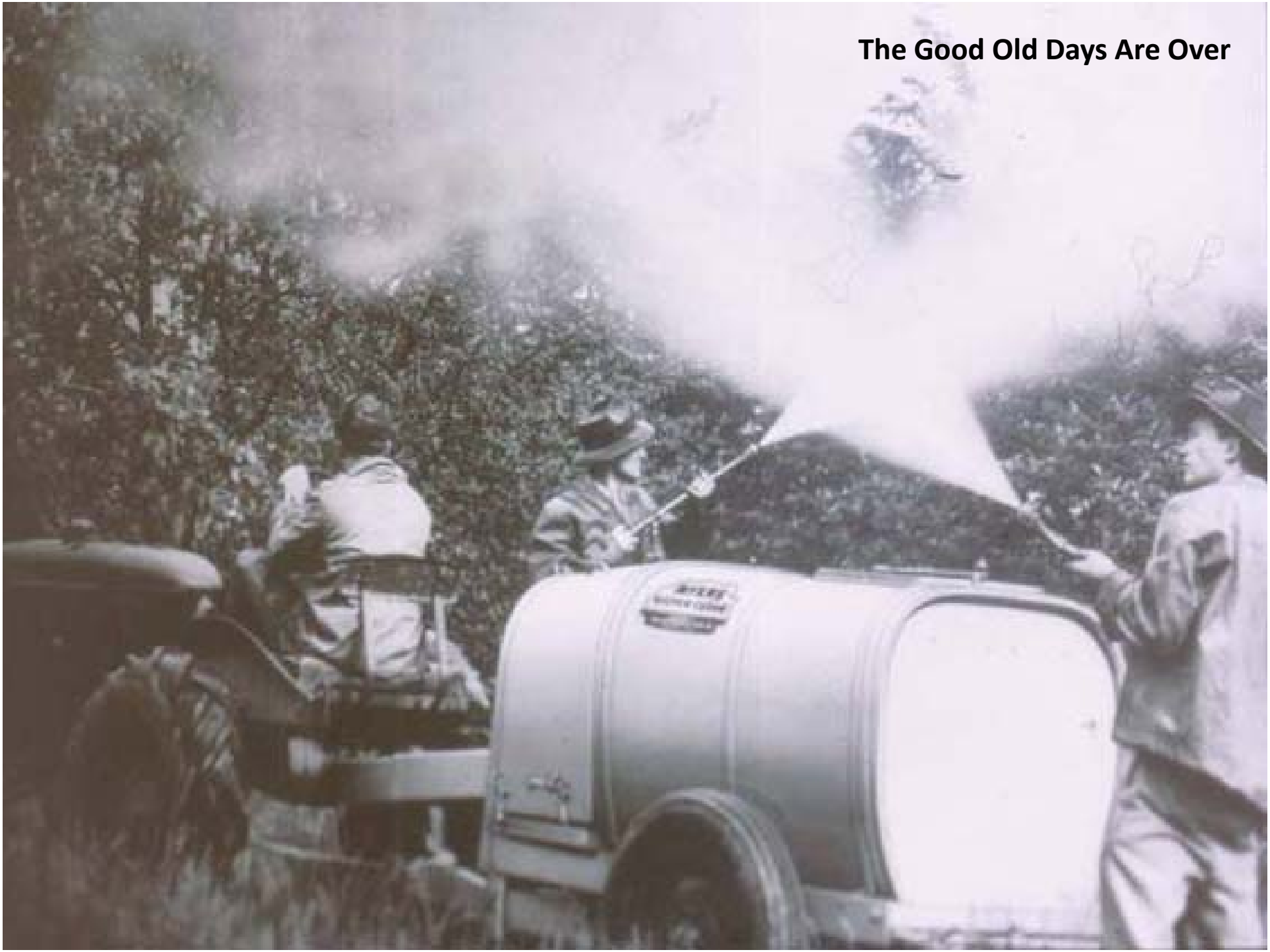


"It's time we face reality, my friends. ...
We're not exactly rocket scientists."


The Good Old Days Are Over